



# Sewerage and Water Board of New Orleans (SWBNO) Billing Quality Assurance/ Quality Control (QA/QC) Utility Billing Assessment Presentation



February 4, 2019

UtiliWorks™

# Agenda

- Billing QA/QC Project Findings and Recommendations
  - Cogsdale CSM
  - Meter Reading
  - Metering Equipment
  - Billing
  - Collections
  - Additional Recommendations
- Delinquent Customer / Disconnect Notice Onsite Support Findings and Recommendations
- Project Status
- Questions & Answers

# Cogsdale CSM Findings & Recommendations

## *New Items:*

- The Cogsdale billing software is correctly billing customers based on the consumption recorded from the meter readings
- Meter reading routes were out of sequence. This has been corrected with Cogsdale as of 1/6/19
  - Manual cleanup is ongoing for those that were not setup in CAM

## *Previous Items:*

- SWBNO's CSM release version is 9 major releases behind. SWBNO has indicated that they have plans to upgrade early this year
  - Would include a number of high-priority fixes and enhancements including a scheduler to run processes and reports (e.g. collections notices)
  - Note- A patch was applied in December 2018 to fix a bug for credit calculations (regarding negative reads)

## Cogsdale CSM Findings & Recommendations

- Consumption estimates should be done for individual customers. If reliable reading history doesn't exist, auto estimate should be changed for different account designations. Right now, all customers (residential, commercial, etc.) will be billed at 100 gallons per day
  - Based on the data from UtiliWorks' analysis the residential average is 5,138 and commercial is 45,690 gallons per month. SWBNO is currently billing all customers an estimated 3,000 gallons per month
- Training for Cogsdale CSM users should be rigorous initially, and continuous training and QA/QC should exist
- SWBNO should have 1 full-time dedicated IT resource to support the CSM system and have enough staff-time available for end-user testing in order to support continued upgrades
- Lower priority recommendations:
  - Audit role-based permissions in the future
  - Have different letter templates where the fields can be auto-inputted and SWBNO can select a list of customers who should receive that type of letter
  - Remove any electric utility references (e.g. KW, KVA, etc.)
  - Credit rating- Change to Cycle so that is identifiable on the home screen

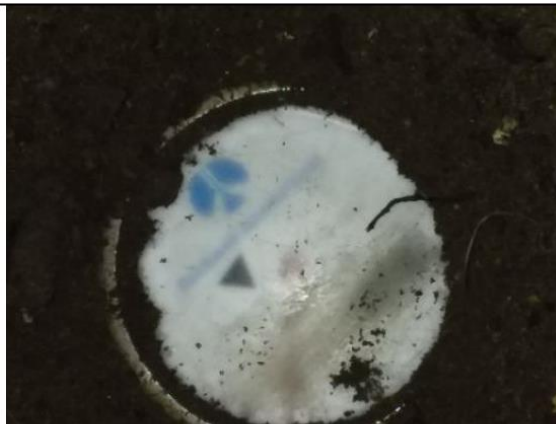
# Meter Reading Findings & Recommendations

## *New Items:*

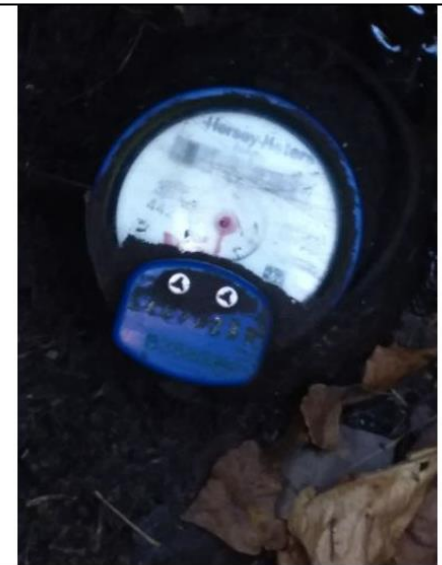
- 201 of the 1023 meters could not be read and were given a skip code, accounting for 19.6% of all meter reads being skipped
- The biggest cause of these skipped reads (101 of 201) was scratched lenses. At a minimum for any given month, about 10% of all meters in the service population cannot be read due to scratched dial faces



(a) Sensus, Equipment ID A383447



(b) Rockwell, Equipment ID A327975



(c) Hersey, Equipment ID B038803

# Meter Reading Findings & Recommendations

	Cogsdale CSM: Billing Cycle																					
Audit: Could the meter be read?	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	#N/A	Grand Total
No	5	13	4	3	10	17	15	7	11	17	8	12	21	13	10	13	6	6	4	6		201
Area flooded; no drain			1				1	1	1	1	1	4	4	3	1	2	1			1		22
Can't locate meter box casing	1	3	2		3	1			3	2	1		3	2	1	3		2		1		28
Covered by lawn/flowers															1							1
Danger/Hazardous area														1								1
Frosted glass verified		1													2		2		1			6
Gate or door locked	1									1				1								3
Meter below grade													1									1
Meter box covered by vehicle, etc.	1								1	1		3	1			1	1	1		1		11
Meter box covered with mud or dirt													2							1		3
Meter box filled with rocks				1																		1
Meter box filled with water									1				3			1						5
Meter box filled with water and mud													1									1
Meter box filled with water and rocks										2												2
Meter casing in tree roots													1									1
Meter covered by trash											1											1
Meter covered by trees, brush, plants, weeds							1															1
Meter removed		2			1			1			2		1	1								8
Scratched glass/verify	2	6	1	2	6	16	13	5	4	10	3	5	4	5	5	5	2	3	2	2		101
Water inside SRM glass		1							1							1			1			4
Yes	33	23	30	35	27	44	43	55	43	30	48	36	24	37	73	78	56	27	30	27	23	822
Grand Total	38	36	34	38	37	61	58	62	54	47	56	48	45	50	83	91	62	33	34	33	23	1023



## Meter Reading Findings & Recommendations

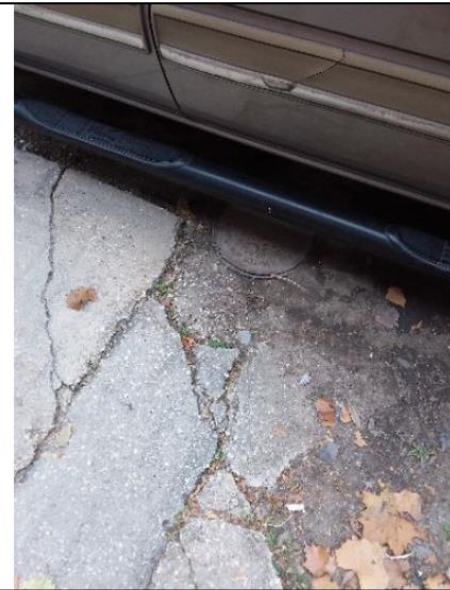
- Other common skip codes for the 201 locations were due to being unable to locate the meter box (28), flooded area (22), or covered by a vehicle (11)
- Of the 1,023 reads conducted, 23 possess equipment IDs that seemingly do not correspond to any billing cycle (or, indeed, any service address or location ID)
- Handheld UX is the only identifiable information displayed for Location ID



(a) Unable to Locate  
Meter Box Casing,  
Equipment ID D007320



(b) Area Flooded,  
Equipment ID C027896



(c) Meter Box Covered by  
Vehicle, Equipment ID  
A374683

# Meter Reading Findings & Recommendations

- SWBNO's meter reading activities are highly accurate
  - 87% (67/77) of all reads for the sample deviated by 100 gallons or less
  - Of the other 10 reads, 7 reads differed by an amount within acceptable bounds if accounting for customer class water consumption rate, leaks, or other activities that may skew results
  - Three billed reads differed dramatically from the audited reads
- There is a discernible number of meter reads marked in the billing system as “Actual Read” where the meter reading field auditor could not readily ascertain a reading
  - Of the 23 reads that the UtiliWorks field auditor could not read, SWBNO meter reading staff reported 19 as “Actual Read” to the billing system
- Meters that are difficult to locate or that have access issues are routinely skipped. Current staffing does not allow the time or manpower for re-reading these meters, causing consecutive months of estimated reads



## Meter Reading Findings & Recommendations

- It is suspected that the cause of excessive negative consumption reported is related to inaccurate and/or no meter reading, the method of estimating a meter read, and the lack of processes to obtain good readings prior to sending a bill to a customer
- SWBNO has established routine reading routes (same routes month to month) for meter reading personnel so that they can develop familiarity and efficiencies - Positive feedback has been communicated by the meter reading managers
- We recommend instituting a new policy whereby if a meter reader finishes their assigned route that day, they can come back to Central Yard to pick up overtime reads, which incentivizes additional reading
- Take a photo for all meter reads to reduce re-read activities
- Make the timecard (check-in and checkout process) electronic

# Meter Reading Findings & Recommendations

## *Previous Items:*

- Initial and final reads and bills for move in/move out activities need to occur in a timely manner
  - Current backlog has pushed these activities out, in some cases for many months which can hurt collections
- Streamline the meter reading dispatch procedure. It is currently a manual process that requires the same information to be written in multiple locations
  - UtiliWorks and Andrea El-Mansura discussed inputting all of this into the Excel workbook that has been created (which will be easier to maintain with readers having the same routes month to month)
- Stagger the meter reading shifts
- Cross train several staff members to backfill for Andrea El-Mansura
- Enforce a no access fee when a meter cannot be reached and the read needs to be estimated for several months

# Metering Equipment Findings & Recommendations

## *New Items:*

- Roughly 10% of meter dial faces are scratched and unable to be read
- Provide a better tool and do not allow screwdrivers to be used by the meter readers to clear mud from the lens
- Newer meters possess small and/or electronic/LCD dials that make taking the read difficult

## *Previous Items:*

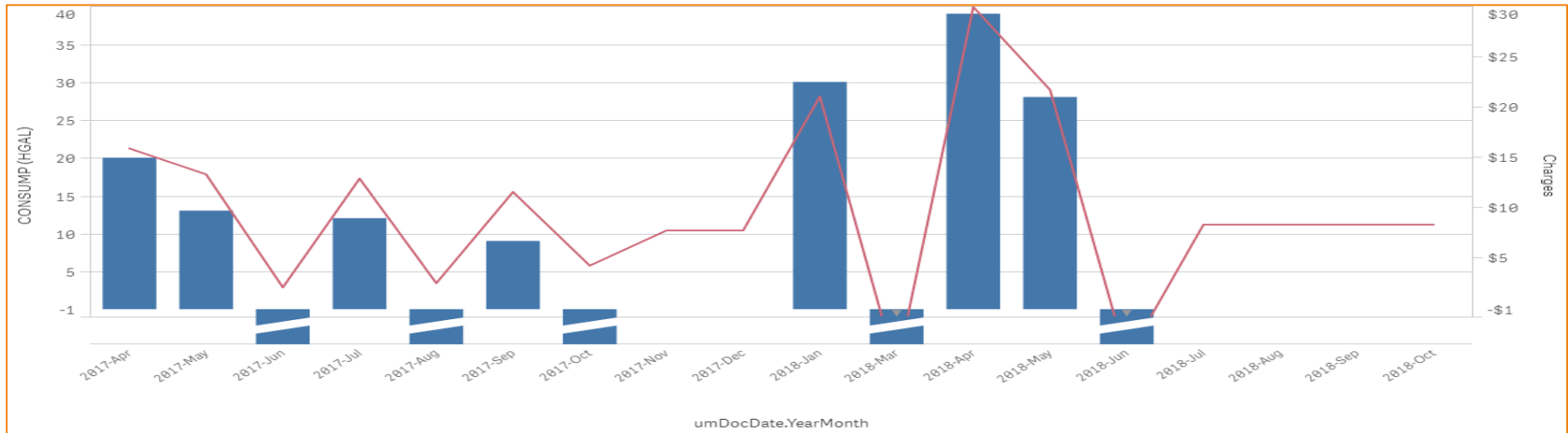
- Purchase meter box lids that utilize a hook in the lid, so the readers don't have to bend over to remove lids
- Install bar code readers in meter shop
  - Use bar codes for meter installs and checking inventory in and out
- *Risk:* If SWBNO needs additional handhelds, they will need to identify how to procure those as the licensing agreements allows for 50 total (currently at the max) and the hardware (FC300) from Itron is no longer manufactured
- *Observation:* The meter shop is exceptionally well-run and organized

# Billing Findings & Recommendations

## *New Items:*

- There are excessive negative consumptions (approx. 5% or roughly 6,800 accounts monthly in 2018) and resultant negative billing corrections
  - While the corrective billing calculations are correct in every case observed, this creates confusion for the customer since it makes bills hard to understand and creates a belief that they are being overcharged. This is likely eroding customer confidence
  - UtiliWorks recommends that SWBNO set up a report to flag accounts with multiple negative consumptions and have a team to investigate
- The overall consumption patterns indicate billing stability until 2018 which coincides with the higher incidence of negative consumptions observed
- The Fire Services accounts, generally, are not billed properly and do not have a defined process for identifying and correcting improper fire line use
- There was a hard freeze in January 2018 that resulted in numerous billing estimates that appear to have caused some instability in the meter-to-cash process. Subsequent months of instability also appear to represent efforts to recover

# Billing Findings & Recommendations: Negative Consumption



Month (2018)	Number of Negative Consumptions
Jan	13
Feb	41
Mar	56
Apr	39
May	17
Jun	9
Jul	13
Aug	15
Sep	4
Oct	26

Negative Consumption for 383 Account Samples

Example Customer with 3/4 Inch Meters - Multiple Negative Consumptions

***44% are repeat occurrences***

# Collections Findings & Recommendations

## *New Items:*

- UtiliWorks recommended SWBNO deliver 150 delinquent letters to customers each day (M-Th) which is now taking place
- Reengage the collection agency, especially as the delinquent notifications are being steadily delivered
- In September 2018, there were more than 12,000 pending transfers shown in CSM which is down to 529 as of 2/4/19. A 16-member team has been working on processing pending transfer and are currently processing about 150 transfers a day. These should be handled within 5 business days (10 at the most). Implications for outstanding transfers include:
  - New customer does not receive first bill since the transfer is not complete in the system
  - Shut off letter or collection processing cannot be processed for new customer though deposit payment has not been received since the first bill was never sent out due to pending transfer
  - First bill received by a customer after pending transfer is processed will have an accumulated high bill which the customer could find hard to pay



# Collections Findings & Recommendations

## *Previous Items:*

- Automate a courtesy call to customers before they are scheduled for disconnection. Today, collections staff are individually calling each customer and manually tracking those activities
  - Note- This is something SWBNO is beginning to work on as of 11/7/18
- Formalize a number of times that customers can break a special payment arrangement (SPA) before they are no longer allowed to have one (e.g. two in a year)
- Set a time limit for customers to dispute a charge (e.g. 12 months)
- Rollover the amount owed from the final bill from one account to the customer's next location if they are transferring
- Place payment kiosks in a few high-traffic areas (e.g. universities, city hall, St. Joseph's Street)

# Additional Recommendations

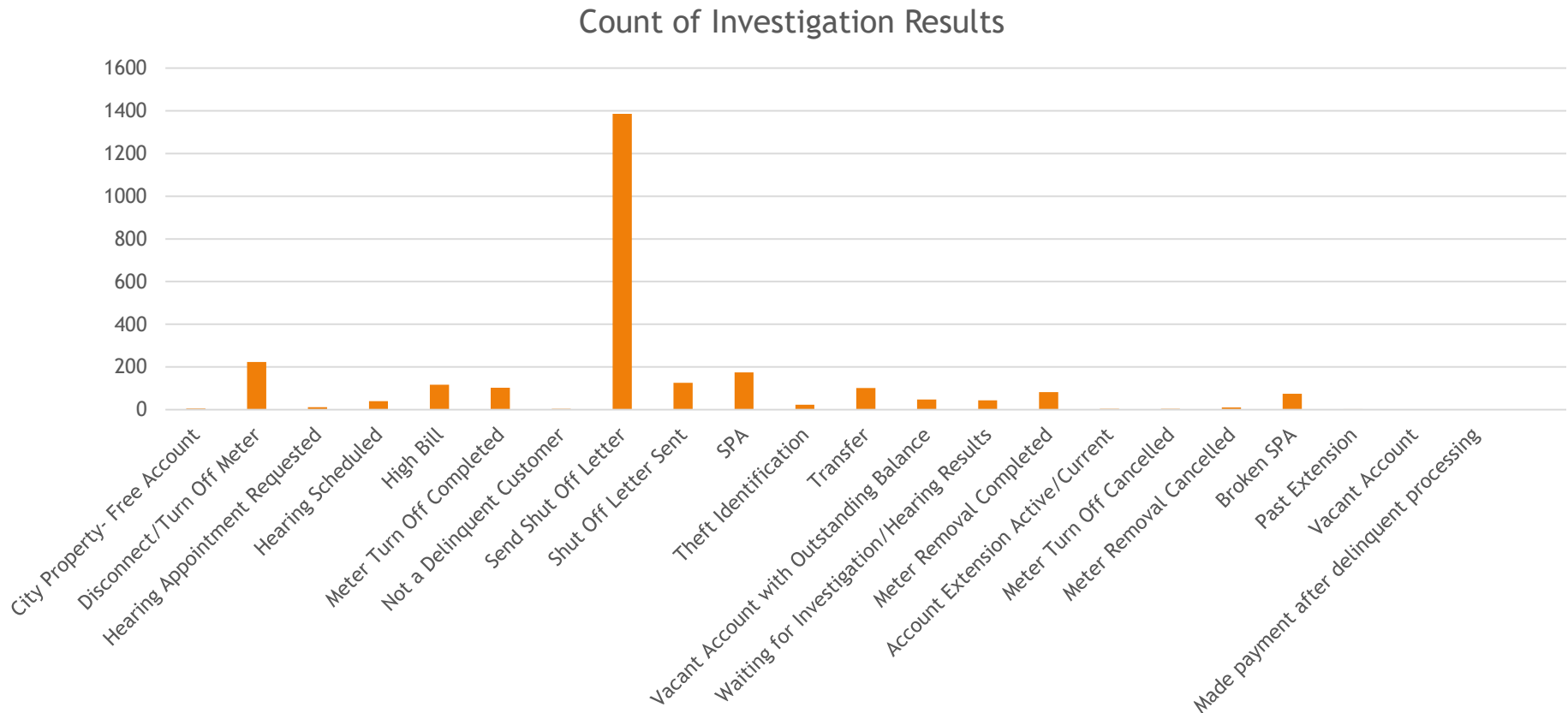
- Schedule a mandatory, monthly meeting to review progress towards improvement goals
  - Require representation from billing, meter reading, meter shop, etc.
- Identify Key Performance Indicators (KPIs) to determine success
- Examples measurables:
  - # of open billing investigations
  - # of disconnects
  - # of customer complaints
  - # of letters mailed out a day
  - # of move in/move out reads
  - # of re-reads
  - # of negative reads
  - % of readings done within 2 days of when they are due
  - # of estimated reads
  - # estimated bills
  - Delinquent owed bills
  - Write-offs
  - Turnover for meter readers
  - Overtime for meter readers
  - News articles- type/tone and number of publications
  - # of unbilled accounts

# Delinquent Customer / Disconnect Notice Onsite Support Findings Review

- Summary Stats:
  - Start Date: 10/11/2018
  - Records Counted Until: 1/15/19
  - Total number of days: 63 days
  - Total number of records process to date: 9691 records
    - QA/QC Check: 2583 records
    - New Investigations: 2573 records
    - Investigation of Accounts with No Payment in 2018: 4535
  - Daily average for number of records being processed: 154 records per day
- The conclusion for vast majority of all investigations is that the customer requires a shutoff letter
- Additional investigation to see how many AMI accounts are in dispute (cycle 14) results are as follows:
  - 7 of 876 customers in Cycle 14 requested a hearing =0.80%
  - The QA/QC had 51 out of 2583 = 1.97%
  - New investigations had 29 out of 2573 = 1.01%

# Billing QA/QC Investigations

- QA/QC check for accounts that SWBNO personnel reviewed
- The Collection Notice Report Export was not able to be provided in Excel or another useable format (printed only). This issue was open since the beginning of the project



## New Investigations Summary

Investigation Results Type	Count of Investigation Results
City Property- Free Account	5
Disconnect/Turn Off Meter	223
Hearing Appointment Requested	11
Hearing Scheduled	40
High Bill	117
Meter Turn Off Completed	103
Not a Delinquent Customer	4
Send Shut Off Letter	1386
Shut Off Letter Sent	126
SPA	174
Theft Identification	23
Transfer	101
Vacant Account with Outstanding Balance	47
Waiting for Investigation/Hearing Results	44
Meter Removal Completed	82
Account Extension Active/Current	4
Meter Turn Off Cancelled	4
Meter Removal Cancelled	10
Broken SPA	74
Past Extension	3
Vacant Account	1
Made payment after delinquent processing	1
<b>Grand Total</b>	<b>2583</b>

## Delinquency Investigation - No Payments in 2018

Investigation Results Type	Count of Investigation Results
Account Extension Active/Current	2
Broken SPA	30
City Property - Free Account	25
Disconnect/Turn Off Meter	126
Hearing Appointment Requested	3
Hearing Scheduled	14
High Bill	31
Made payment after delinquent processing	5
Meter Removal Cancelled	9
Meter Removal Completed	57
Meter Turn Off Cancelled	2
Meter Turn Off Completed	82
NEEDS FURTHER INVESTIGATION	140
Not a Delinquent Customer	69
School; Do Not Send Shut Off Letter	39
Send Shut Off Letter	2260
Send to Collections	217
Shut Off Letter Sent	107
SPA	44
Suspect Incorrect Rate Code Application	16
Theft Identification	22
Transfer	961
Unbilled	17
Vacant Account	28
Vacant Account with Outstanding Balance	167
Waiting for Investigation/Hearing Results	62
<b>Grand Total</b>	<b>4535</b>

# Billing QA/ QC Scope and Status

- Task 1 - Mobilization & Discovery
  - Project team identification
  - Kickoff meetings were completed the week of October 8, 2018
  - Project charter was executed November 9, 2018
  - Weekly status reports and meetings
- Task 2 - Utility Billing Assessment: 2.A - Meter Reading Field Audit
  - 1023 meters were read by UtiliWorks between November 12, 2018 to December 19, 2018 across every cycle
  - The meter reading audit report was delivered January 22, 2019
  - Issue: Comparison of Meter Reads for Audit Report- There is not a standard report that can provide the data fields requested (meter read, type, date, etc.) for use in the meter reading analysis. Multiple data requests have been issued. UtiliWorks implemented a workaround which compared against a smaller sample size. The SWBNO team agreed to the workaround approach on January 14, 2019




## Billing QA/ QC Scope and Status

- Task 2 - Utility Billing Assessment: 2.B - Bill Data Review
  - UtiliWorks provided a data analysis of past bills, reviewing 383 accounts for the sample (which includes historical usage)
  - Activities began the week of October 15, 2018
  - The bill data review report was delivered January 22, 2019 and amended on January 25, 2019
- Task 2 - Utility Billing Assessment: 2.C - Cogsdale System Review
  - Onsite discovery occurred the week of October 29, 2018 to survey system settings and configurations
  - The final Cogsdale system review report was delivered December 8, 2018
- Task 2 - Utility Billing Assessment: 2.D - Business Process Workshop and Process Definition
  - On-site cross-functional workshops to review the complete billing process, from meter read to bill printing occurred October 11-12, 2018
  - The business process documents and findings report was delivered November 2, 2018

## Billing QA/ QC Scope and Status

- Task 2 - Utility Billing Assessment: 2.E - Recommendations / Client Review
  - Billing QAQC Executive Update & Recommendations occurred on November 8, 2018
  - Final results presentation scheduled for February 4, 2019
- Task 3 - Delinquent Customer / Disconnect Notice Onsite Support
  - Staff augmentation for approximately 2 full-time equivalents plus a supervisor
  - Summary report was delivered January 25, 2019
  - Orientation happened Tuesday October 9 and Wednesday October 10, 2018. We are scheduled to commence February 13, 2019 with the approved extension
- Task 4- Billing Review Onsite Support
  - Zero dollar change request has been executed as of January 4, 2019 moves funding from Task 4 to Task 3

# High-Level Timeline

Task Name	% Complete	Duration	Start	Finish	3rd Quarter		1st Qu
					Jul '18	Oct '18	Jan '19
<b>SWBNO Billing QA/QC Project Schedule</b>	<b>82%</b>	<b>107 days</b>	<b>Thu 9/13/18</b>	<b>Wed 2/13/19</b>			
▫ 1. Mobilization & Discovery	100%	29 days	Tue 10/2/18	Fri 11/9/18			
▫ 2. Utility Billing Assessment	94%	85 days	Fri 10/5/18	Tue 2/5/19			
▫ Meter Reading Field Audit	100%	69 days	Mon 10/15/18	Tue 1/22/19			
▫ Bill Data Review	100%	69 days	Mon 10/15/18	Tue 1/22/19			
▫ Cogsdale System Review	100%	44 days	Fri 10/5/18	Sat 12/8/18			
▫ Business Process Workshop and Process Definition	100%	21 days	Thu 10/11/18	Fri 11/9/18			
▫ Recommendations / Client Review	50%	15 days	Wed 1/16/19	Tue 2/5/19			
▫ 3. Delinquent Customer / Disconnect Notice Onsite Support	81%	89 days	Tue 10/9/18	Wed 2/13/19			
▫ 4. Billing Review Onsite Support	0%						

# Summary Recommendations

- Develop a strategic plan to fix known issues beginning with the following objectives:
  - Identify all unreadable meters and repair / replace
  - Reduce the number of skipped meter readings and prioritize
    - Move in / move out reads and
    - Accounts where reads were estimated for more than 2 months
  - Change the estimation process to be more accurate by
    - Using historical averages for individual accounts or
    - Basing it off of like-accounts if past usage is suspect or unavailable
  - Upgrade Cogsdale to a more current version
- Acknowledge recent achievements:
  - Route sequencing has been fixed in CSM
  - Meter readers have consistent reading routes
  - Progress on outstanding transfers

# Q&A

# Thank You!

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